

# PATENT SPECIFICATION

NO DRAWINGS

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## COMPLETE SPECIFICATION

### Hair-dyeing Compositions

We, EXBASA, care of Mr. G. Martin, Cor-  
raterie 12, Geneva, Switzerland, a Swiss  
Limited Company, do hereby declare the in-  
vention, for which we pray that a patent may  
be granted to us, and the method by which  
it is to be performed, to be particularly de-  
scribed in and by the following statement:—

The present invention is concerned with  
improvements in or relating to compositions  
for dyeing living hair.

It is known that living hair can be dyed  
with liquid or paste-like hair-dyeing agents.

Liquid hair-dyeing agents have, amongst  
other things, the disadvantage that they run  
off the head, thereby rendering a good and  
simple dyeing of the hair impossible.

In order to overcome this disadvantage,  
dyeing pastes have been produced for dyeing  
living hair. However, they have the disad-  
vantage that, prior to the commencement of  
the dyeing process, they have to be mixed  
with hydrogen peroxide and then applied to  
the hair by means of a brush. The hydrogen  
peroxide hereby acts as an oxidising agent  
for the colouring substance.

It is a disadvantage that these hair-dyeing  
pastes have to be mixed with hydrogen per-  
oxide prior to their application. The mixing  
ought to be carried out thoroughly and in the  
shortest possible space of time, but this is  
not always possible. This results in different  
dyeing intensities. If the dye mixing takes  
place too early, there may well be colour  
losses, due to premature oxidation of the dye.  
Another disadvantage of such paste-like dye-  
ing agents resides in the fact that the dyed  
hair cannot simply be rinsed but must be  
shampooed in order to remove the dyeing  
paste from the hair. The time required for the  
application of the paste-like dyes is very long  
and is considered to be disadvantageous by  
the person whose hair is to be treated.

The application of the paste-like hair  
dyes with a brush prevents an accurate  
measurement of the dyeing, the thickness of

the layer to be applied being merely a matter  
of estimation, which naturally makes a level  
dyeing of the hair impossible.

It has also been proposed to rinse the hair  
with hair dyes which are soluble in water,  
using a spraying method. However, 90%  
of alcohol was necessary. The disadvantage  
of such a hair-dye rinse was that there was no  
resistance to subsequent washing of the hair,  
i.e. the dye was completely washed off the  
hair. It is necessary that a hair-dyeing with-  
stands several washes.

The object of the present invention is to  
eliminate the disadvantages of the known hair-  
dyeing preparations.

It has been found, surprisingly, that hair-  
dyeing compositions can be used which are  
pressed out of a container by means of a pro-  
pellant in the form of a viscous liquid or of  
a viscous foam and which contain up to about  
20% by weight of a lower alcohol.

Thus, the present invention is concerned  
with a hair-dyeing composition for dyeing  
living hair, comprising a viscous acid or alk-  
aline aqueous solution of at least one known  
oxidation dye, at least one lower alcohol misc-  
ible with water, in an amount of up to about  
20% by weight of the total amount of the  
above constituents, and a known propellant  
which is liquifiable under slight pressure.

It is of interest to note that hair-dyeing  
agents of this new type are time-saving. The  
addition of hydrogen peroxide to the dyeing  
composition, which was hitherto necessary, is  
done away with, a pre-dyeing rinse with  
hydrogen peroxide being all that is required.

Hair-treating agents, such as cholesterol  
and lanolin, may be added to the hair-dyeing  
composition but agents such as cholesterol  
do not act here as emulsifiers.

The use of oxidation dyes and especially  
aromatic bases and their derivatives, such as  
amine-phenols and aromatic diamines and  
their derivatives, as well as nitrated products,  
for dyeing living hair is already known as

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such but those compositions of the present type have so far not been described.

The alcohols which can be advantageously used are the lower aliphatic alcohols, especially ethanol and isopropanol, but *n*-propanol, *tert*-butanol, *n*-butanol and isobutanol can also be used, whereby the solubilities have to be taken into account. The amount of alcohol is preferably between 5 and 20% by weight of the total mixture.

The propellants are preferably the fluorochloro-hydrocarbons known under the Registered Trade Mark "Freon". The compositions according to the present invention are filled into so-called "aerosol containers". However, it should be noted that these compositions do not come out from said containers in the form of a fog but as a viscous liquid or foam.

The following example is given for the purpose of illustrating the present invention, the parts being parts by weight:—

EXAMPLE.		Parts
25	Ethanol 80%	20
	Agar-agar	1.15
	Cholesterol	0.01
	Ammonia 25%	5
	Sodium sulphite	2
30	Nitro- <i>p</i> -phenylene diamine sulphate	4.05
	Sodium <i>p</i> -aminobenzoate	0.1
	Water	- add 100

7 parts of this mixture are mixed with about 3 parts of "Freon 12" as a propellant. 35

#### WHAT WE CLAIM IS:—

1. A hair-dyeing composition for dyeing living hair, comprising a viscous acid or alkaline aqueous solution of at least one known oxidation dye, at least one lower alcohol miscible with water, in an amount of up to about 20% by weight of the total amount of the above constituents, and a known propellant which is liquifiable under slight pressure. 40

2. Hair-dyeing composition according to Claim 1, wherein the dye is an aromatic diamine, an amino-phenol or a nitro derivative of said diamine or said amino-phenol. 45

3. Hair-dyeing composition according to Claim 1 or 2, wherein the alcohol is ethanol or isopropanol. 50

4. Hair-dyeing composition according to any of the preceding claims, wherein there is additionally present at least one known hair-treating agent, such as cholesterol or lanolin. 55

5. Hair-dyeing composition for dyeing living hair substantially as hereinbefore described and with reference to the specific example. 60

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